

### AMENDMENTS TO THE CLAIMS

1-20. (Canceled)

21. (Currently amended) A medical device comprising a first medical device portion comprising a first ~~tissue-contacting surface that is configured to undergo a time dependent variation in~~ surface adapted to contact tissue, said first surface having a surface charge at a site of contact with a host, said surface charge being variable in response to a time dependent signal from a signal generator, and wherein said variation guides the migration of selected cell types to produce a longer useful lifetime of the device by limiting undesirable cellular responses to foreign bodies.

22. (Canceled)

23. (Currently amended) The medical device of Claim ~~22~~ 21, wherein said variation ~~in surface charge~~ guides endothelial cells.

24. (Currently amended) The medical device of Claim ~~22~~ 21, wherein said variation in surface charge guides fibroblasts.

25. (Previously Presented) The medical device of Claim 21, wherein said medical device is configured for subdermal implantation

26. (Previously Presented) The medical device of Claim 25, wherein said medical device is configured for vascular implantation.

27. (Previously Presented) The medical device of Claim 21, wherein said time dependent signal produces a current density through host tissue or body fluids of between 0.01 and 100 mA/cm<sup>2</sup>.

28-36. (Canceled)

37. (Currently amended) The medical device of Claim 21, wherein ~~said device further comprises~~ the first surface adapted to contact tissue further comprises

one or more first electrodes adapted to be subdermally located in the close proximity of a critical structure or feature of ~~a device introduced into the body~~ an implanted portion of the device; and the medical device further comprises:

one or more second electrodes located elsewhere[;] and

control circuitry and power supply adapted to provide for the passage of an electrical current through tissue between the first set of electrodes to the second set of electrodes ~~for the purpose of minimizing encapsulation,~~

wherein the control circuitry is coupled to both the first set of electrodes and the second set of electrodes, and the electrical current results from the time dependent signal.

38. (Currently amended) The medical device of claim 37 wherein one or more first electrodes is affixed to the ~~device~~ implanted portion of the device.

39. (Currently amended) The medical device of claim 37 wherein one or more second electrodes is affixed to the ~~device~~ implanted portion of the device.

40. (Currently amended) The medical device of claim 37 wherein one or more first electrodes is not affixed to the implanted portion of the device.

41. (Currently amended) The medical device of claim 37 wherein one or more second electrodes is not affixed to the implanted portion of the device.

42. (Currently amended) The medical device of claim 37 wherein the device is adapted to be percutaneous in nature.

43. (Currently amended) The medical device of claim 37 wherein the device is adapted to be fully implanted.

44. (Currently amended) The medical device of claim 37 wherein the device further comprises:

a semipermeable structure, wherein the one or more first electrodes is separated from tissue by a the semipermeable structure.

**Application No.:** 10/722,306  
**Filing Date:** November 24, 2003

45. (Currently amended) The medical device of claim 37 wherein the device ~~is used for the purpose of~~ further comprises a therapeutic agent delivery element.

46. (Currently amended) The medical device of claim 37 wherein the device ~~is used for the purpose of~~ further comprises a sampling of biofluids for analytes sampling element.

47. (Currently amended) The medical device of Claim 21, wherein said first ~~tissue contacting~~ surface adapted to contact tissue is configured for fluidic contact with tissue.